An Efficient Link Building Strategies for Search Engine Optimization

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Abstract

When we search in Goggle for "Search Engine Optimization" we get 37,700,000 results. The term "Search Engine Strategy" gives 157,000,000 results. We get thousands of strategies and advise from millions of self-certified search engine experts. It's too difficult for a website owner to go through all of these advises and follow them. It will need more than a lifetime to just read them all. Now what should he do? No search engine service providers ever reveal about their ranking rules or algorithms in order to protect their search results from manipulation by website owners. In order to keep their search results authentic, they regularly change the search algorithms and ranking rules. But the main rules are not changed completely, as the search results have to be relevant and logical. The only way out for us to find out about the working of search engines is to search the relevant information provided on some big sites and by SEO gurus. All SEO gurus have different perspective about the importance of various SEO strategies but one thing is common among all. Almost everyone states that optimization of internal links and good external links are helpful in the ranking of a website in search engine results.

This paper provides a workable solution for small website owners to adopt a system that is easy to implement and provide positive results. We have tried to find out specific and the most logical linking strategies that can be easily implemented and off course affordable too in terms of time and effort.

Keywords

Search Engine, Search Engine Optimization (SEO), Internal Link Building, External Link Building

I. Introduction

A. What are Search Engines?

The term "search engine" is often used generically to describe both crawler-based search engines and human-powered directories. These two types of search engines gather their listings in radically different ways. Crawler-based search engines, such as Google, create their listings automatically. They crawl the web, and then people search through what they have found. If there is any change on the web pages, crawler-based search engines eventually find these changes, and that can affect on the listing. Some search engines also mine data available in news books, databases, or open directories. Unlike Web directories, which are maintained by human editors, search engines operate algorithmically or are a mixture of algorithmic and human input.

B. How Search Engines Works?

Crawler-based search engines [7] have three major elements. First one is spider or crawler. The spider visits a web page, reads it, and then follows links to other pages within the site. This is what it means when someone refers to a site being "spidered" or "crawled." The spider returns to the site on a regular basis, such as every month or two, to look for changes. Everything the spider finds goes into the second part of the search engine, the index.

The index, sometimes called the catalog, is like a giant book containing a copy of every web page that the spider finds. If a web page changes, then this book is updated with new information. Sometimes it can take a while for new pages or changes that the spider finds to be added to the index. Thus, a web page may have been "spidered" but not yet "indexed." Until it is indexed -- added to the index -- it is not available to those searching with the search engine.

Search engine software is the third part of a search engine. This is the program that searches through the web pages recorded in the index to find matches to a search and then rank them in order of what it believes is most important.

C. How Search Engines Rank Web Pages ?

To Search for anything search engine use crawler-based search engine. Nearly instantly, the search engine will sort through the millions of pages it knows about and present you with ones that match your topic [10]. The matches will even be ranked, so that the most relevant ones come first. Unfortunately, search engines [2] don't have the ability to focus the search. They also can't rely on judgment and past experience to rank web pages, in the way humans can. So to determine relevancy they follow a set of rules, known as an algorithm. Exactly how a particular search engine's algorithm works is a closely-kept trade secret. However, all major search engines follow the general rules as mentioned below:

1. Location, Location, Location...and Frequency

One of the main rules in a ranking algorithm involves the location and frequency of keywords on a web page. Search engines will check to see if the search keywords appear near the top of a web page, such as in the headline or in the first few paragraphs of text. They assume that any page relevant to the topic will mention those words right from the beginning. It will also analyze how often keywords appear in relation to other words in a web page. Those with a higher frequency are often deemed more relevant than other web pages. But if the frequency is above normal it may be deindexed for spamming.

2. Spice in the Recipe

All the major search engines follow the location/frequency method to some degree, in the same way cooks may follow a standard chili recipe. As cooks add their own innovative recipe, in the same way, search engines add spice to the location/frequency method. Nobody does it exactly the same, which is one reason why the same search on different search engines produces different results.

3. Off The Page Factors

Off the page factors [3] are those that a webmasters cannot easily influence. Chief among these is link analysis. By analyzing how pages link to each other, a search engine can both determine what a page is about and whether that page is deemed to be "important" and thus deserving of a ranking boost. In addition, sophisticated techniques are used to screen out attempts by webmasters to build "artificial" links designed to boost their rankings. Another off the

page factor is click through measurement. In short, this means that a search engine may watch what results someone selects for a particular search, and then eventually drop high-ranking pages that aren't attracting clicks, while promoting lower-ranking pages that do pull in visitors. As with link analysis, systems are used to compensate for artificial links generated by eager webmasters.

D. Search Engine Optimization

1. SEO Overview
Experts in search engine optimization can tell the steps needed to take in order to be one of the top entries on a SERP (Search Engine Results Page).The most important component of SEO: excellent content [9]. Without strong content, SEO tips and tricks will provide a temporary boost in the site's ranking at best.SEO techniques rely on how search engines work. Some are legitimate methods that are a great way to let search engines know your Web page exists. Other techniques aren't good ways to get noticed and might involve exploiting a search engine so that it gives the page a higher ranking.

(i). White Hat SEO Techniques
To improve a Web page's position in a SERP, you have to know how search engines work. Search engines categorize Web pages based on keywords -- important terms that are relevant to the content of the page.

(ii). Black Hat SEO Techniques
Some people seem to believe that on the Web, the ends justify the means. There are lots of ways webmasters can try to trick search engines into listing their Web pages high in SERPs, though such a victory doesn't usually last very long.

2. How Search Engine Optimization Works ?
While most search engine companies try to keep their processes a secret, their criteria for high spots on SERPs isn't a complete mystery [8]. Search engines are successful only if they provide a user links to the best Web sites related to the user's search terms. If your site is the best resource on the Web, it benefits search engines to list the site high up on their SERPs.
It finds a way to show search engines that your site belongs at the first page of search. That's where search engine optimization (SEO) comes in -- it's a collection of techniques a webmaster can use to improve his or her site's SERP position.

(i). Pick Your Target Keywords
Each page in your web site will have different target keywords that reflect the page's content. Your target keywords should always be at least two or more words long.

(ii). Position Your Keywords
Make sure that target keywords appear in the crucial locations on the web pages. The page's HTML title tag is most important. Failure to put target keywords in the title tag is the main reason why perfectly relevant web pages may be poorly ranked. Search engines also like pages where keywords appear "high" on the page, as described more fully on the Search Engine Ranking page. To accommodate them, use target keywords for your page headline, if possible. Have them also appear in the first paragraphs of your web page.

(iii). Create Relevant Content
Changing your page titles is not necessarily going to help your page do well for your target keywords if the page has nothing to do with the topic. Your keywords need to be reflected in the page content.

(iv). Create HTML links (Internal Links)
Often, designers create only image map links from the home page to inside pages. A search engine that can't follow these links won't be able to get "inside" the site. Unfortunately, the most descriptive, relevant pages are often inside pages rather than the home page. Solve this problem by adding some HTML hyperlinks to the home page that lead to major inside pages or sections of your web site.

(v). Build Inbound Links (External Links)
Every major search engine uses link analysis as part of its ranking algorithm [8]. As a result, link analysis gives search engines a useful means of determining which pages are good for particular topics. By building links, you can help improve how well your pages perform in link analysis systems.
There are also other ways to attract quality links. One that has recently gained traction is link baiting [10]. It refers to a variety of techniques used on a web site to attract links from other web sites. This can include content, online tools, downloads, or anything else that other site owners might find compelling enough to link to.

(vi). Just Say No to Search Engine Spamming
For one thing, spamming doesn't always work with search engines. It can also backfire. Search engines may detect the spamming attempt and penalize or ban that page from their listings.

(vii). Submit your Key Pages
Most search engines will index the other pages from the web site by following links from a page that is submitted to them. But sometimes they miss, so it's good to submit the top two or three pages that best summarize your web site.

(viii). Verify and Maintain the Listing
Check on the pages and ensure they get listed, in the ways described on the Check URL page. Once the pages are listed in a search engine, monitor the listing every week or two.

E. Internal And External Link Building Strategies

1. Internal Link Building
Internal link building is one of the crucial components of an effective search engine optimization strategy that is often overlooked by SEO professionals [1]. In the race for external incoming links people often have no time or desire to take care of the internal linking structure. However, when properly implemented one way link building can provide for a number of benefits like Reputation, Better Rankings and Easy Navigation.

2. How to Optimize Internal Links ?
With so much time spent being myopic over link building and external links (development of one-way, reciprocal links or building the blog roll), people often forget that they have the most relevant authority site sitting right under their nose - their own pages.
If the pages are aged and already have page rank, then it's just icing on the cake, this is the basis of link equity. By tweaking the

structure of how your pages pass rank, can essentially mold how search engines treat the content on those pages.

When starting over is not an option, there are a few things to do salvage an older site by performing a content and link audit.

1. Make all of the links absolute; remove secondary keywords that are NOT RELEVANT.
2. Highlight all out-bound links
3. Optimize the anchor text
4. Don't try to optimize a page for more than 3 terms / keywords.
5. Use contextual links in the content, the higher on the page the better as links higher in the page are known to carry more weight in search engines vs. footer links.
6. Keep the pages lean 20k or less (optimization also means loading time), this includes images and code bloat.
7. Optimize the in-line code.
8. Hone the focus of the page - Make sure the main keyword appears at least 2-4 times on the page and once in the h1 and a slight variation in an H2 tag.
9. Augment the pages through the buddy system - Have at least 5 of the strongest pages concentrating their collective internal link-juice towards the newest rock star page (the page that wish to elevate and send forth as the messenger in the SERPs).
10. Clean out pages that are off topic.

In a nutshell by adding a blog to an older static site, sometimes that can be enough with a few tweaks to the pages to jump start the search engine ascension process, however each site is unique and has it's own internal and external link threshold.

(i). Sitemaps
In its simplest form, a sitemap is a logically designed, well… map…of the pages of the site. It is usually a page in itself, provides links to, and sometimes descriptions or titles of, the pages within the site. Once the search engine has found this page, it is a piece of cake for it to crawl and index every page on the site.

(ii). Keyword Power
For example, if the homepage has a navigation menu on it which links to a page called "Products," and the link anchor text is just the word "products," are wasting a chance at creating a valuable keyword-rich link. If instead changed that link to "Acme Company Metal Can Openers," search engines will now notice that the product page is actually about "Acme Company Metal Can Openers" and will stand a better chance of appearing in SERPs for those keywords.

(iii). Link Power
This doesn't mean creating a hundred sentence-long links to a whole bunch of pages on the home page and the product pages. The links coming from a home page should always be limited to the most important pages wish to market. Home page (for most websites) is usually the page which is linked to the most, and therefore probably has the highest authority, or in Google's terms Page Rank, than any other page on the website. Every page that it links to will gain from the power of that link.

(iv). Alt tags and images as links
Stay away from image links if possible. If not, then include your targeted keywords in image ALT tags, as those serve as anchor text in image links.

(v). Building navigation
Navigation should help visitors find what they need on your website and guide search engines to your pages. If one cannot use too many keywords in your main navigation, then offset the navigation to your footer and use keywords there.

Use breadcrumbs to make website more usable:

Homepage > Section 1 > Something Else > Article

(vi). Linking out
One do not have much control over who links to the site, so search engines go easy on links from bad neighborhoods, but one has complete control over who one links to [1]. If one links to low quality spam sites, either by partnership or on your own, expect to see a negative impact on the rankings.

On the other hand, when one links out to quality, relevant websites, this tells the search engines that their website is a quality resource. Search engines are believed to take this into consideration, so link out from your content to high-quality pages.

(vii). Using no follow to sculpt page rank
Many links have no ranking value. These include pages that cover privacy policies, terms of use, contact information, about us and more, but those pages are expected on each website by visitors, so one can't avoid them [4].

As you link internally from page A to page B, C, D and F, link power from page A is distributed equally between B, C, D and F. If, for example, page F is a privacy policy page that has no ranking potential, one can apply a "nofollow" attribute to the link from page A to page F. This blocks search engines from passing link juice to page F and as a result, more link power is now distributed between pages B, C and D.

3. External Link Building Strategy
It is quite sure that without external link building, it is difficult to get any sort of free organic web traffic from any search engine. Moreover, search engine giant Google and in that matter, any other of the search engines won't be so interested to indexing the website since your website is not so visible to them unless you got totally unfeigned content on the current happenings and hottest trend that nobody else has put so far!

(i). Why Is External Link Building So Important?
The importance to keep the links in place bears a lot of weight. The number of links the website receives over the time is essential. More importantly, good strategy is not to build up few dozen of links so shortly and then suddenly stop it or slower the way down. In stead, it is better to keep the amounts of incoming links increasing or constant. Search engine giant certainly notices the decreases in links over the time as the website loses its importance and relevancy in its niche.

(ii). One Way links from article directories with targeted keywords
Article directories provide one way link to your website in return of articles posted by us on their website. They get the informative content provided by us and allow us to place a link to our website at the end of the article in the form of author resource box. These articles are further provided to other website owners by the article directory site to post on their websites along with our link. This way we get several one-way links in barter of one article. These articles can also be posted on blog websites to get more links and visitors through those links.

(iii). Two Way Links / Reciprocal Links

The term reciprocal link simply means I put a link to your website on mine if you put a link to my website on yours. This is also known as doing a link exchange [5]. Reciprocal linking used to be a very popular way for webmasters to build links to their sites. However, since Google can recognize when sites are linking to each other these "votes" do not count for as much as if you had received a natural one way link from the site.

(iv). Three Way Links

Text link from site A linking to a similar article on site B and a link back to site A's index page from site C's index -- Or -- A link from the partners page on site A to the main page of site B and a link from one of site C's category pages to an article on site A. In each link scenario everyone gets a one way link.

II. Problem Analysis And Findings

A. Practical Review of Link Building Strategies

In order to study the relevance of our link building strategies, we search for many websites that were using these methods. The website www.pregnacy-period.com [11]was found to have implemented most of strategies mentioned above.

We have conducted a detailed study point to point as proposed by us on this website.

The details are as follows.

(1) Content

(a) Target relevant keywords with low competition

SEO Guru Timothy Gorman says "I would rather rank number 1 for 100 long tail keyword phrases that each get 1 search a day then rank number 20 for the most competitive phrases that receive thousands of searches a day."

As we know that millions of active websites are available at the world wide web and are fighting tooth and nail for the search engine placements. Therefore it is essential for a new website to avoid this cut throat competition at the initial stage. We should target low competition keywords in the beginning in order to mark our presence on the major search engines.

We search for some keywords on www.google.com and find the results as shown in the table below:

Keyword	Search Results By Goggle
"pregnancy"	83,000,000
"pregnancy stages"	183,000
"pregnancy period"	73300
"pregnancy wheel"	14900
"pregnancy diet plan"	5300

The above analysis shows that if we pick "pregnancy" as a main keyword, it has 83,000,000 WebPages already available to compete. But if we target "pregnancy period" then there are only 73,300 WebPages present for competition. Similarly "pregnancy diet plan" has only 5,300 WebPages to compete.
Experimental results:

We collected the details of all the webpages of the website www. pregnacy-period.com by generating the list of it's webpages with the help of http://www.xml-sitemaps.com
Total number of pages found was 457. We searched for some of the keywords of the webpages on www.google.com and found the following result.

URL	Keyword / Key Phrase	Competition	Rank	Page
pregnancy-period.com/pregnancy_weight_planning.html	pregnancy weight planning	3	1	1
pregnancy-period.com/unusualpregnancysymptoms.html	unusual pregnancy symptoms	2180	1	1
pregnancy-period.com/most_fertile_period.html	most fertile period	14200	1	1
pregnancy-period.com/best_time_to_get_pregnant.html	best time to get pregnant	54300	1	1
pregnancy-period.com/nausea-during-pregnancy.html	nausea during pregnancy	17800	2	1
pregnancy-period.com/pre_pregnancy_planning.html	pre pregnancy planning	64200	2	1
pregnancy-period.com/baby-shower-games.html	pregnancy celebration	5120	3	1
pregnancy-period.com/pregnancy-doctor.html	pregnancy doctor	31000	4	1
pregnancy-period.com/pregnancy_problems.html	pregnancy problems	141000	4	1
pregnancy-period.com/early-pregnancy-symptom.html	early pregnancy symptom	75600	6	1

Findings

The above chart shows that if the search competition is easy, it is easier to rank well on search engine result page.
(1) Content
(b) Use keyword rich content and meta tags, written in a systematic way. Therefore the keyword of the web page should be placed at regular intervals within the content along with in the title, first line and the last line. It should be used within the file name and meta tags as well. The secondary keywords should also be placed at least once for variation and extra keyword strength.

Experimental results

On almost all the pages of pregnancy-period.com, the keywords are used in the same manner as we propose. For e.g. http://www. pregnancy-period.com/postpregnancydiet.html
Primary Keyword: post pregnancy diet
Secondary Keywords: weight gain, pregnancy

The primary keyword is used
(1) In the file name: http://www.pregnancy-period.com/ postpregnancydiet.html
(2) In the content: in the title, first line and the last line

Screen shot 1

Findings

The ranking of this page for the keyword "Post pregnancy diet" is No 7 on Page 1 of the www.google.com

Fig. 3

Screen Shot 2

(2) Inward linking

(a) Two fold navigation system (main navigation and secondary navigation)

As explained in early paragraphs that search engine crawlers give preference to such sites that provides good user experience, the navigation of the website should be easy and user friendly. The main section should be provided on each page of the website so that the user as well as the crawlers can navigate from one page to the other conveniently.

Experimental Results

This website structure has taken the same system proposed by us for navigation. The main navigation is at the top of the content and secondary navigation is at the right hand side of the content. E.g. Screenshot of the webpage at http://www.pregnancy-period.com/pregnancy_diet.html

Fig. 4:
Screen shot 3

Findings

The two fold navigation system is helpful for the users for easy navigation through the website. Search engine like the websites with user-friendly navigation.

(2) Inward Linking

(b) Hyper links with keywords used as anchor text.

Experimental Results

Keywords used as anchor text as shown in the previous screenshot of http://www.pregnancy-period.com/pregnancy_diet.html

Table 2:

Findings

Using keywords as anchor text solve the dual purpose. It is helpful for the user to find the relevant content and it is optimized for that keyword as well.

(3) External linking

An inward link from other site (external link) is counted as a vote for search engine ranking. The simple rule is followed. Higher is the number of inward links; higher will be your website's rank. In order to get external links we should focus on one-way links from article directories & blogs and through reciprocal link building.

(a) One way links from article directories with targeted keywords

Article directories provide one way link to your website in return of articles posted by us on their website. They get the informative content provided by us and allow us to place a link to our website at the end of the article in the form of author resource box. These articles are further provided to other website owners by the article directory site to post on their websites along with our link. This way we get several one-way links in barter of one article. These articles can also be posted on blog websites to get more links and visitors through those links.

Experimental results

The site has several links from article directories as proposed by us.

Example: Links from www.ezinearticles.com [6]

Ezinearticles.com is a free article directory where website owners can submit their articles with inbound links to their website [6]. Moreover, other website owners, looking for free fresh content relevant to their website, take these articles form ezinearticles and post them to their website along with the inward links. This way a website owner gets multiple inbound links for their website.ink url: http://ezinearticles.com/?id=594310

Table 3 :

Anchor Text	Destination URL
Pregnancy Period	http://www.pregnancy-period.com/
Chinese pregnancy calendar	http://www.pregnancy-period.com/pregnancy-planning.html
pregnancy tests	http://www.pregnancy-period.com/pregnancy-test.html

Fig. 5

Findings

Submitting articles with the inbound link on article directories provides benefits in multiple ways. We get traffic as well as inward link from multiple websites.

(3) External Linking

(b) Reciprocal link building

Reciprocal link building is always better than three-way or parallel link exchanges. If a website owner is asking for a reciprocal link to it's website, that means that website is important to him and he will maintain the quality of that website. By providing a link from your website to a quality website is considered as a positive step by search engine crawlers. And if you get a link in exchange it's a winning situation. That means your website get a link from a quality website.

Experimental Results

A webpage with the name of "Pregnancy Resources" (http://www. pregnancy-period.com/pregnancy-resources.html) is present on this website providing links to other website. In exchange of these links pregnancy-period.com gets links from these websites. This is called reciprocal link building as proposed by us.

Example:

The first link on this webpage http://www.pregnancy-period. com/pregnancy-resources.html is given below Anchor Text: Pregnancy - Pregnancy Symptoms, Signs of Pregnancy, Baby Care at Pregnancy.info
Destination URL: http://www.pregnancy.info/

Fig. 6

In return of this link http://www.pregnancy.info/ has provided link to http://www.pregnancy-period.com/ from the following URL.
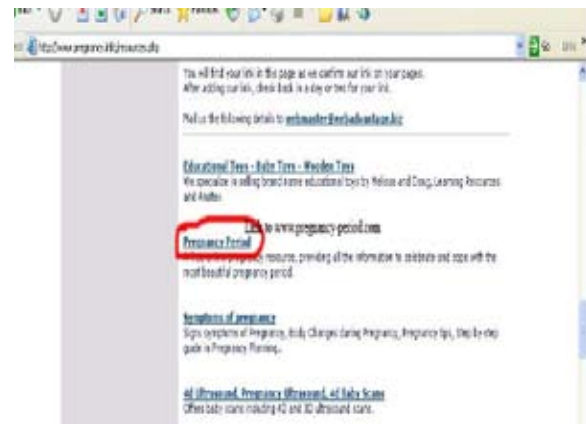
Link URL:
http://www.pregnancy.info/resources.php

Fig. 7

Findings: Both the websites www.pregnancy-period.com and www.pregnancy.info has provided reciprocal links to each other from their resources page as proposed by us.

III. Conclusion

In our attempt to study the implementation of our system on the website www.pregnancy-period.com , we found that almost our entire external link building strategies and system to optimize internal links has been adopted by this website. The great success of this website related to the search engine presence is the evidence of the importance of our proposed system. According to Alexa(http://www.alexa.com/data/details/main/pregnancy-period.com), this website is ranked 118351 out of total 224749695 active websites in March' 2009.
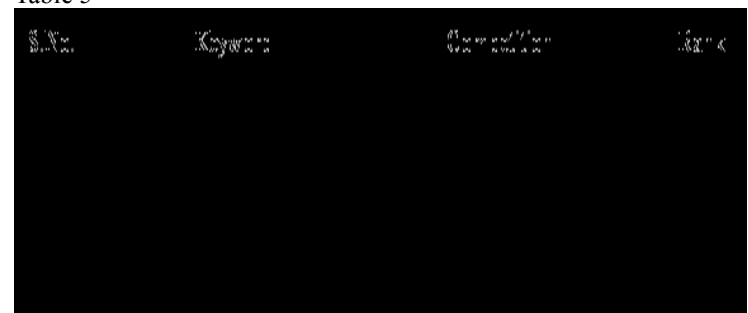
Google Ranking of Pregnancy-period.com
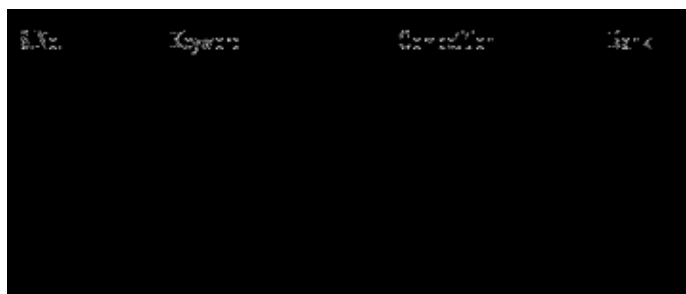Table 4
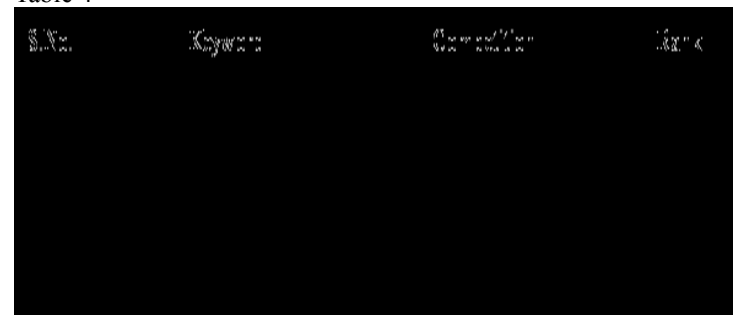
Yahoo Ranking of Pregnancy-period.com
Table 5

MSN Ranking of Pregnancy-period.com

Table 6

We have found in this study that website www.pregnancy-period.com is attracting good traffic and a decent traffic ranking according to alexa.com. The website's presence on major search engines like GOOGLE.COM, YAHOO.COM and MSN.COM also indicates that the search engine optimization of this website is efficient enough to attract search engine crawlers and their rankings. Therefore, it is evident from all these results that the external link building strategies and system for optimization of internal links proposed by us are helpful for search engine optimization of websites.

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